

WHAT IS CLAIMED IS:

1. An organic EL circuit comprising:

a plurality of pixels, each pixel having a plurality of driving
5 transistors which are switched on and off based on data from a
plurality of data lines and a plurality of organic EL elements each
of which is provided to correspond to each of said plurality of
driving transistors, wherein

the transistor size of each of said driving transistors differs
10 from that of the other driving transistors; and

gray scale display is effected by controlling the number of
transistors to be switched on in order to vary the number of EL
elements which are switched on in each pixel and thereby control
the amount of light emitted by each pixel.

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2. An organic EL circuit according to claim 1, wherein the sizes
of the plurality of driving transistors are set so that the sizes
are sequentially doubled.

20 3. An organic EL circuit according to claim 1, wherein the size
of the transistor is determined by the gate length and/or gate width
of the transistor.

25 4. An organic EL circuit according to claim 1, wherein the light
emission areas of said plurality of EL elements within one pixel
are varied.

5. An organic EL circuit according to claim 4, wherein the light
emission area of the EL element connected to the larger driving

transistor is increased.

6. An organic EL circuit according to claim 1, wherein
the driving period of the driving transistor of each pixel
is divided into a plurality of sub-fields; and
the duration of ON condition of each EL element is controlled
by controlling the on/off condition in each sub-field.

7. An organic EL circuit according to claim 6, wherein the lengths
of said plurality of sub-fields are set so that they are sequentially
doubled.